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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,246	11/10/2005	Bernardus Hendrikus Wilhelmus Hendriks	NL030468	6577

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

STEPHENS, SCOTT H

ART UNIT PAPER NUMBER

2872

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/556,246	Applicant(s) HENDRIKS ET AL.	
	Examiner Scott H. Stephens	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/10/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lea (US 4583824).

Regarding claims 1, 5, 9, and 10, Lea teaches an adjustable mirror comprising: a first fluid (33) and a second fluid (31) in contact over a meniscus (fig. 2) extending transverse an optical axis (fig. 2), the fluids being substantially immiscible (col. 2 line 44) and having different indices of refraction (col.2 lines 46); a reflective surface extending transverse the optical axis (surface of fluid 31); and a meniscus adjuster arranged to controllably alter at least one of the shape and the position of the meniscus (see abstract).

Regarding claim 2, Lea further teaches wherein said reflective surface is a substantially planar surface (see fig. 2).

Regarding claim 3, Lea further teaches wherein said meniscus adjuster is arranged to utilize the electrowetting effect to alter the shape of the meniscus (see abstract).

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Claims 1-3, 5, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Prins (US 6961167).

Regarding claims 1, 5, 9, and 10, Prins teaches an adjustable mirror comprising: a first fluid (3) and a second fluid (4) in contact over a meniscus (figs. 1-3) extending transverse an optical axis (figs. 1-3), the fluids being substantially immiscible (col. 1 line 34) and having different indices of refraction (col. 1 line 35); a reflective surface extending transverse the optical axis (col. 1 lines 44-49); and a meniscus adjuster arranged to controllably alter at least one of the shape and the position of the meniscus (see figs. 1-3).

Regarding claim 2, Prins further teaches wherein said reflective surface is a substantially planar surface (see figs. 1-3).

Regarding claim 3, Prins further teaches wherein said meniscus adjuster is arranged to utilize the electrowetting effect to alter the shape of the meniscus (see abstract).

Claims 1-3, 5, 9, and 10 rejected under 35 U.S.C. 102(b) as being anticipated by Onuki (US 6449081).

Regarding claims 1, 5, 9, and 10, Onuki teaches an adjustable mirror comprising: a first fluid (15) and a second fluid (16) in contact over a meniscus (figs 19) extending transverse an optical axis (figs. 19), the fluids being substantially immiscible (col. 20 line 32) and having different indices of refraction (figs. 19); a reflective surface extending transverse the optical axis (see figs. 19) and a meniscus adjuster arranged to

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controllably alter at least one of the shape and the position of the meniscus (see figs. 19).

Regarding claim 2, Onuki further teaches wherein said reflective surface is a substantially planar surface (see figs. 19).

Regarding claim 3, Onuki further teaches wherein said meniscus adjuster is arranged to utilize the electrowetting effect to alter the shape of the meniscus (see abstract).

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Berge (US 6369954).

Berge teaches an optical device comprising: a first fluid (11) and a second fluid (13) in contact over a meniscus extending transverse an optical axis (fig. 6), the fluids being substantially immiscible (see abstract) and having different indices of refraction (see abstract); a reflective surface extending transverse the optical axis (fig. 6); and a meniscus adjuster arranged to controllably alter at least one of the shape and the position of the meniscus (fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida (US 5825801) in view of Ticknor (US 2003/0012483)

Regarding claims 1 and 5, Nishida teaches an adjustable mirror (3) comprising: a fluid (col. 4 lines 1-18) in contact over a meniscus (figs. 10) extending transverse an optical axis (figs. 10), a reflective surface extending transverse the optical axis (figs. 10); and a meniscus adjuster arranged to controllably alter at least one of the shape and the position of the meniscus (col. 3 lines 66-67 and col. 4 lines 1-18). Nishida lacks a second fluid. Ticknor teaches a first fluid (para. 7) and a second fluid (para. 7), the fluids being substantially immiscible (para. 7) and having different indices of refraction (para. 7). At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Nishida's fluid adjusted mirror to include Ticknor's second immiscible fluid. The motivation for doing this would have been to allow optical attenuation with ultra low power dissipation as suggested by Ticknor (see paragraphs 9 and 10).

Regarding claim 4, the combination of Nishida and Ticknor further lacks an aspheric lens. However, examiner take official notice that aspheric lens configurations are well known. At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the combination of Nishida and Ticknor to include an aspheric lens. The motivation for doing this would have been allow aspherical manipulation of light.

Regarding claims 6-8, Nishida further teaches an optical device as claimed in claim 5, wherein the device is a lighting system for providing a directed beam of light (col. 2 lines 36-54), the device further comprising a light source arranged to emit

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electromagnetic radiation, the optical device comprises a laser cavity (1), the cavity including a second mirror (2) wherein said second mirror is also an adjustable mirror (col. 2 lines 36-54).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott H. Stephens whose telephone number is 571-272-3113. The examiner can normally be reached on Monday-Friday 7:30am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Stephens
Monday, October 23, 2006

SHS


MARK A. ROBINSON
PRIMARY EXAMINER